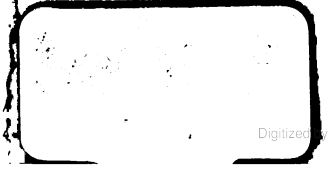
TECHNICAL EDUCATION AND ITS INFLUENCE ON SOCIETY

ARCHBISHOP OF CANTERBURY



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Lee Russell
1893

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An Address

DELIVERED BY

HIS GRACE THE

ARCHBISHOP OF CANTERBURY

AT THE OPENING OF

THE CROYDON COUNTY POLYTECHNIC

DECEMBER 22ND, 1891

London

MACMILLAN AND CO.

AND NEW YORK

1892

RICHARD CLAY AND SONS, LIMITED,
LONDON AND BUNGAY.

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I HOPE I need scarcely say to the inhabitants of Croydon that it gives me very great pleasure to be with them on any occasion which marks the progress of this remarkable Borough, which within the lifetime of many people was scarcely a tenth of its present size, and which has during the whole of this great increase shown a real tendency to advance in every direction. To-night is by no means an insignificant illustration of its forwardness in affairs which belong to the improvement, advance, and prosperity of our country. In many places the first idea, in almost all places in fact the first idea of a

Polytechnic or Technical School and Institution, which should do the work you have before you, has been actually suggested by their finding themselves to their great surprise in possession of a sum of money, and being told they had better found a Technical School with it. Over a very considerable part of the country not very long ago there was very little idea indeed as to what a Technical School was. But when this message is delivered to Croydon, Croydon not only thoroughly understands what is meant by a Technical School, but says: "Here we have the Institution established and at work; we only want a good house and means for teachers to proceed. We ourselves have already (and I am sure I ought in the first instance to give honour where honour is due) owing to the exertions of one of the Clergy, a Technical School in all essential particulars, only at present on a small scale, but at work and

succeeding." I need not say to you with what devotion, with what zeal, with what thorough knowledge of the subject your work has been carried out. It is for you no experiment at all. Upon a greater scale I should like to insist presently on the fact that these things which come upon you now are no experiments. Here in Croydon you have made actual proof of the working and I should like to put in the forefront of what I have to say—which will be really very little because the work is too new—I should like to put almost in the forefront the fact that I think you so very right in entering on this in a most serious spirit; in the idea that the move you are making is for the improvement and advance of the individual, and that so far as the improvement and advance extends to many individuals, so far it is the whole country which is being benefited, not only by the actual progress of the men and boys who

learn their work here, or learn what is most important to their work here, but also by the spirit of serious improvement which will be awakened and produced. You have determined that this shall not be a place for amusement. You have watched other places, started with the kindest and most benevolent intentions. You feel that work is work and amusement is amusement, and that if work and amusement are tried under one roof and run together, there are many natural tendencies in all of us which will make the amusement-scale go up and the work-scale go down. You mean to be quite in earnest about everything you undertake here. Well then, I feel bound almost to say it, but when I say it, it is something you are already acquainted with, it is the fact that pupils will not learn, will not be taught, trades; for many reasons, economical and political partly, but for one very good reason to my mind. It is

this. It is not at all good for trades that people should be taught the actual trades too early ; it is not good for any of us who look forward to any particular career to be put too early to that career, so that the whole of life will be spent in one particular walk without the interests of the mind being early engaged, early turned to a variety of information, so that one may know how great the field of interests is in this world. It is not good for a human mind that it should be set too early to grind along one groove. What applies to the learning of trades, applies to all professions, applies equally well to games. Let me illustrate this. I was asking the other day about a young fellow, if he was a good tennis-player. The reply was, " Not very good : he is very fair, but not very good ; he has been playing all his life ; he does not take care enough about it now." And if our interests are too early turned into that one particular

narrow limited line, in which all shall be engaged in later life, those interests are very apt to get outworn. But here trades will be advanced and affected, in a very much more important way than if they were actually learnt, because what will be learnt here will be exactness in methods; that kind of exactness which has to be applied everywhere and to everything that has to be done well. The judgment will be trained, the eye and hand will be trained. Trades want new blood to come into them. They want the young people that are to take them up to be apprentices, or what, in these days answers to the old ideas of apprenticeship, they want them to be apt learners. They want their capacity to be good; they want their receptivity to be good; they want them to be able to take in new ideas, to learn quickly to turn their hands, as it were, to anything; and the hand that is to be turned to anything must have been made supple and

quick, and skilful and sure, and apt in its movements, it does not matter by what, but by something or other. Just as if you want a man to be a good lawyer or a good historian, you train him in Greek and Latin, not that the Greek and Latin will be of itself very frequently and constantly in use, unless his good taste and intellectual feeling guide him still to keep them up and enjoy them, and then he will have no doubt the greatest enjoyment and interest a man can have. But whatever you want a man to do, you want his intellect trained by some method to become capacious —his receptivity, his power of taking in new ideas, his power of taking in what is said to him to be large and accurate, his power of perceiving what is the right and best way to be sound—instead of thinking that he can see much farther than his elders, and that some new idea which comes flashing through him is necessarily better than what can be taught him.

All our best industries, all our industries in fact I may say which are important to the common wealth, are based on exactness, and it is that spirit of exactness, which, as you look through this programme of the work that is to be done here, you see is necessary to be brought out in every single subject. Everyone of the subjects here requires observation, close attention, strong reflection, and a great many of them require that skill of eye and hand to be cultivated of which I have spoken already as so important. You want dexterity; and beyond that, your young scholar, if he is to be an apt and forward and ripe scholar, must understand something about the principles of things. Then also you have that very great and wide field which is so necessary to large classes of our community in commercial life, a real knowledge of foreign languages. And now you want not only the one or two foreign languages in great commercial houses,

and for great commercial undertakings, which used to be quite sufficient, but you want teachers to come forward in all directions. You are getting acquainted now with the fact that there are young Germans who can write excellent letters in five different languages; and that shows how important it is that our people should be trained in something of the same way. Then you have again the vast field of science, and also a very large field in which scientific principles and knowledge are all important. The very lighting of our streets and rooms, the very communicating of our ideas one to another, the one being in England, the other in the ends of the earth, all these things have to be advanced, and therefore inquired into. And not only scientific work, but a grasp of scientific principles. Here again I mention the German classes, and here again, we in England are beginning to feel most undoubtedly our want

of some clearer training than we can get at present in scientific principles. I have been recently to a mountain village in Germany, a mere village of some 2,000 or 3,000 inhabitants, and yet there every peasant's room is lighted by electricity. We Englishmen used to rejoice in being in the van, and we have been. But, unless we better ourselves, in face of the fact that there are in German villages young men who can write good letters in four or five languages, and peasantry, who when they go home from minding cattle, have their cottages lit by the electric light, it is quite clear that they are doing by comparison, what is a disagreeable thing for us to confess—"going ahead." We have a great many local industries in England; how long we shall have them I know not. But in the meantime there ought to be as good preliminary training, as much training in principles and practice as regards

the materials to be used, as regards the best methods of developing each industry as there can be. Here again we want training. For instance, large parts of our districts in England are still clever and skilled in the making of gloves. Extremely important it is for these glove-makers that they should be able to tell well-prepared and durable pieces of leather; extremely important it is that they should know exactly what will make first quality, second quality, and third quality gloves; and considering that dyes so very much affect the softness and tenacity of the leather, it is very important that they should be able to tell the differences between them. Now to take another instance. I know a very, an extraordinarily rich man whose riches have been accumulated in a life-time entirely. He is no friend of education at all; he said he had not much, and he did very well without it; and he told me "There

are little boys of eight years old in the mines near here, who will look at five heaps of ore, and by looking at the colour of it, and taking it in their hands, balancing it and estimating its weight, will tell you how much an ounce each of those five lots of ore is worth." I am not quoting him with approbation ; but he said "I maintain that these boys get a better education, and become sharper men than if they were to learn their A B C." I don't agree with him, I don't think the A B C would hurt them, but on the contrary would do them good. But it is quite clear, if skill is to be brought to bear on production, it is very important, and that somebody else beside these little boys of eight years old should be able to tell what the value of a heap of ore is by looking at its colour, and judging its weight. Here close to our borders, in Kent, how much depends upon the hop industry ; how much depends on the

money that is there received, and is set flowing in different directions throughout the country. How extremely important it is considering the many casualties which beset that crop, that a man may one day think he has thousands of pounds on his fields, and in the next week may find he has not hundreds. How extremely important it is that they who have to deal with that tender plant, so subject to the weather, so subject to other accidents, should be able to tell on the instant with the aid of something or other, such as a microscope or magnifying glass, what it is that is happening to the leaf, what is the meaning of that black or grey dust which is just gathering in its little wrinkles, and know how to deal with the hostile insect best. Well, that introduces you at once to a large field, first of natural history and then of chemistry, and in the condition in which the world is to-day, and the state of

nearly all its occupations, it will not do for this country to be left behind in the study, and in the possibility of letting every man who has his occupation to follow, have something or other of such knowledge. It is necessary therefore that as speedily as may be, there should be brought to every man's door the possibility of making himself not only a workman but a good workman and a thorough workman. In another sense also it is not an experiment. It is not an experiment, in that we have already tried manual instruction in a great many of our Elementary Schools. But the Technical Schools are not allowed to give manual instruction to those who are actually receiving or earning grants in the day schools. But then it is a very difficult and a very expensive matter for the schools to provide themselves with teachers and rooms, in which that which is allowed shall be taught, namely, the use of tools and the different

methods in which you manipulate wood and iron. You will promote this here very much by what seems to me to be an admirable arrangement, greatly for the benefit of the schools, greatly for the extension of your own usefulness, and, in one sense, very economical, namely, that you have undertaken, as an experiment, to give 100 scholars from the schools within your radius, manual instruction in the workshops established under your roofs. If that is found successful, about which I have not myself the slightest doubt, it will be the strengthening of an exceedingly important link; it will be a bridge between the elementary and the technical schools. We must ask ourselves this—Do we see in our young people symptoms that this kind of instruction will be cared for? People meet you here and there who will say that there is no such desire amongst our children for anything of the kind, but they draw their

examples, I think, from very unfair strata of society. They think it to be *doctrinaire* and speculative, that a great deal of money should be asked for, to teach what people did not want or care for. So far, however, as we have tested it they do care for and want it very much indeed—care for it down to very young people. I believe that those schools where manual instruction is taught have no dearth of scholars, but always so great a competition for boys to be trained in these ways that a great many are obliged to be excluded. Therefore I think the experience of every school where manual instruction has been tried assures us that the cold water which has been thrown on this scheme as *doctrinaire* and speculative is all nonsense ; that people in their homes and various paths of life are beginning to be quite aware of its immense importance ; and in no cold and businesslike manner

merely, but in an enthusiastic way—to be aware of the great benefits, great interest, and great happiness, that comes from being able to use one's fingers and understand other things than the particular groove in which you are obliged to move. We have little idea here of what magnificent institutions exist in many parts of the Continent for those very purposes for which you are now opening this Polytechnic. Some of us have seen the splendid buildings which are erected there, with their great façades, their beautiful class rooms, their lecture rooms, their museums, their gardens, and all that is necessary for the great classes of people who mean to take advantage of those rooms. I have been reading a letter from a French commissioner comparing what is within the reach of all French artizans, with what is within the reach of our most favourably placed artizans, and I must say I could not read it without humiliation. But I felt

more and more glad I was to come to bear my testimony, however feebly, to the efforts you are making in the same direction. We shall be a long while, I am afraid, before we raise them to the same scale on which they exist in these foreign towns. However, it may come by degrees, if corporations devote the income which has now become theirs, in the same patriotic manner as you have done, to the benefit of Croydon. It will come in time. Then we shall hope to see as the place grows, as the class-rooms grow, as the subjects require more and more room for teaching, museums formed within these walls. I hope further that these museums will soon contain some of the beautiful reproductions which are turned out even here in England but still more abroad, of the great works of art of old; and I hope we shall see them not for mere diversion or entertainment. I know that I watch sometimes with feelings akin to

distress the troops of people who go along through the passages of the British Museum, gazing at some of the most wonderful things in this world; gazing at things that go back to our very earliest history; to the very earliest of our Bible history, exhibiting civilisation in all its stages, showing how nations that have passed away long ago, excelled us in a degree that we can scarcely realise, in the production and love of beautiful forms, and beautiful suggestive representations, of greatest accuracy and correctness of detail, and yet so subordinated to all the primary ideas of the subject that these whatever they may be, are brought out in the most magnificent way. We see people stream past these things with wistful eyes very often and with open mouths, but really and truly knowing nothing about them, able to learn nothing about them; and I look forward to the day when there shall be not only museums but also teachers to explain the types and specimens.

There is nothing in the world that really can compare with our British Museum. Any student of a subject, who knows what he is about, can in an instant look at the things he wants to see and trace point after point by specimens exhibiting every known variety. It is the same at Kensington; so that one who knows what he is to look for can make extraordinary progress. But most of the people are not students, and don't set to work in that way, yet are all capable of getting a great deal of light and interest into their lives, if they could only get an explanation of the specimens which they would like to have explained. Well, then, I trust the museums that will gather round the walls of our Technical School will be carefully arranged and selected, and that there will be something of this kind of teaching which shall enable men to find interest in botany, in physiology, in coins, in architecture, in sculpture, in

painting, whatever meets his spirit. The lights of life and interest that are shining, may be, outside our paths—but certainly throwing a great reflection and brightness upon our paths —will form part of the study that is to be done here. Next I hope, that as art will certainly be taught here, and also the beginnings of the ideas of manufacture, you will be able to combine these things as they ought to be combined. For here again we are not so successful in art manufacture as foreign countries, and I can conceive no reason why we should not be. We are great in manufacture and great in art, but we want a bridge made which shall bring that art into our daily life, that the furniture of our houses and the ornaments of our tables and chimney-pieces should not be, as they often are, hideously ugly. We want that the furniture of our homes should be not merely useful, still more that it should not be the trash which now passes

for art furniture. We want what the old Romans used to call *decentia* or decorum, an indefinite gracefulness, a power of judgment of form and colour. We want to see this borne into our very midst, to see the artist in closest communication with the manufacturer, and the manufacturer with the artist. That artist should not give to manufacturer something to be executed in wood or brass which never could be executed, simply because he has never taken into account the materials with which the man has to work; and, on the other hand, that the maker should not be a man who, while thoroughly understanding the qualities of the material, is utterly unable to tell how it can be bent and twisted into perfect grace. Does it end here? Supposing we are quite sure that all the bright things I think I can see coming afar off, shall be soon felt as regards power and

activity of mind, intelligence, judgment, and art—suppose we get all these things, is that the end? By no means. A man who has learnt skilled methods when he was a boy, or lamenting, when a man, that he has not done so, and finding that there is plenty of time, sets to work to supply his deficiency. That man learns a quality we call self-reliance; he knows what he aims at; he knows how to set that aim practically before him. Then, if I have learnt self-reliance and I see that my neighbour has learnt self-reliance in his way, and my next neighbour has learnt the same lesson in his way, then I see no reason why I should not rely on my neighbour and my neighbour on me. And so that which began by being self-reliance, ends by being *mutual* reliance. Then the men who have learnt to rely on each other are sure that the people with whom they have to deal, do what they have to

do well. And so we get a more solid and stronger society than we had before, for as soon as self-reliance develops into mutual reliance, we have the great power of inter-dependence binding the whole of society together. As with each man so with each class; each class will be doing its own work in the most thorough manner, by the highest means, and with the best methods; each class will rely on class, and will be stronger as it learns and follows out its duty to all the others. You can see again how the difference is one of skill if you look at a list of those strikes which have effected some good in all directions, but at a very heavy cost, and then compare them with the results of those strikes which have been effected by skilled workmen. The mechanical engineers pursued very different ways, and obtained very different results from the unskilled workmen who endeav-

oured to obtain the same thing by mere force. The history of the dock strikes is as different a thing as possible from the history of strikes in certain other towns where now month by month there sit round the table employers and workmen to discuss all the questions affecting each other, and where there seems scarcely a possibility of such a calamity as a strike. I believe that the more skilled we get in all our proceedings, and the more we understand of the relations of man to man, trade to trade, and class to class, the more we shall obtain all those good results which we call advancement and progress without the terrible sacrifices and distresses that have had to be endured in the past. As society becomes more perfect, and more and more progress is made in ability, in happiness, and in moral well-being, you will find that the classes become not less differentiated, but more; only that

each will be animated by a sincere desire to sacrifice itself so far as it ought to sacrifice itself for the good of all other classes. There will be as we work on, if we understand what we are working for, less and less selfishness among individuals, less and less selfishness amongst classes. You do not find the more skilful and the more educated people the most selfish, but far less so. It is thus with individuals, and so it will be with society, and this is the great structure you are helping to build up. I do believe that at the present mo ment we see tendencies towards this true end. I do believe that capital and labour are much more alive to their duties than they were ten years ago, certainly than they were twenty years ago. And if we have capital and labour and exchange recognising their duties towards each other, endeavouring to contribute to the common good, if this be the case, then the outlook before us is not as

some people would have us believe, so threatening and so dreadful; but we may look forward to what I believe, if we only work in the spirit of the founders and first promoters of this Polytechnic, will be a much happier, a much brighter, and a much more enlightened future.

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